PENDING CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A base station comprising:

a transceiver subsystem; and

a processing subsystem configured

to receive a request for grant including an identification of a specific service class from a mobile station, the specific service class being one of a set of available service classes, each service class corresponding to a particular type of data to be transmitted by the mobile station, and wherein the request for grant is received if a threshold amount of data is detected in buffers at the mobile station,

to make a determination whether or not to issue a grant to the mobile station in response to the request for grant, to send a grant for the specific service class to the mobile station if a determination is made at the base station to issue the grant, and

to receive data for the specific service class transmitted according to the grant on a reverse link from the mobile station to the base station, wherein the base station is a serving base station.

2. (Original) The base station of claim 1, wherein the processing subsystem is configured to make the determination independently of a base station controller.

3.   (Original) The base station of claim 1, wherein the processing subsystem is configured to make the determination independently of one or more additional base stations.

4.   (Previously Presented) The base station of claim 1, wherein the determination is made at a medium access control layer.

5.   (Original) The base station of claim 1, wherein if the processing subsystem determines that the grant should be issued to the mobile station, the base station is configured to issue the grant.

6.   (Previously Presented) The base station of claim 1, wherein the processing subsystem is configured to identify the mobile station in the grant.

7.   (Previously Presented) The base station of claim 1, wherein the processing subsystem is configured to issue the grant as an individual grant.

8.   (Previously Presented) The base station of claim 7, wherein the processing subsystem is configured to identify the mobile station in the individual grant.

9.   (Previously Presented) The base station of claim 1, wherein the processing subsystem is configured to issue the grant as a common grant.

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10. (Previously Presented) The base station of claim 9, wherein-the processing subsystem is configured to identify in the common grant the specific service class for which the common grant is issued.

11. (Original) The base station of claim 5, wherein the processing subsystem is configured to issue at least one individual grant and at least one common grant.

12. (Currently Amended) A mobile station comprising:

a transceiver subsystem; and

a processing subsystem coupled to the transceiver subsystem and configured

to process information received from the transceiver subsystem,

to generate information to be transmitted by the transceiver subsystem,

to generate a request for transmission to a base station in a layer for determining at the base station whether or not to issue a grant to the mobile station in response to the request for grant, the request for transmission identifying a specific class of service among a set of available classes of service, each service class corresponding to a particular type of data to be transmitted by the mobile station,

to receive a corresponding grant determined at the base station, ~~and~~

to control the transceiver subsystem to transmit data for the specific class of service according to the received grant on a reverse link from the mobile station to the base station, wherein the base station is a serving base station; and

to monitor buffers, wherein for each buffer, to generate the request for transmission if a threshold amount of data is detected in the each buffer.

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13.   (Currently Amended) The mobile station of claim 12, ~~further comprising one or more buffers,~~ wherein <u>the</u> each buffer is associated with one of the classes of service.

14.   (Canceled)

15.   (Currently Amended) The mobile station of claim [[14]] <u>13</u>, wherein the request for transmission for [[a]] <u>the each</u> buffer specifies the class of service associated with the <u>each</u> buffer and the amount of data in the <u>each</u> buffer.

16.   (Canceled)

17.   (Previously Presented) The mobile station of claim 12, wherein the processing subsystem is configured to identify a maximum supportable traffic-to-pilot ratio in the request.

18.   (Previously Presented) The mobile station of claim 17, wherein the processing subsystem is configured to generate feedback while transmitting under the grant, wherein the feedback indicates changes in the maximum supportable traffic-to-pilot ratio.

19.   (Previously Presented) The mobile station of claim 12, wherein the processing subsystem is configured to generate one or more additional requests for transmission to the base station if no grant is received in response to a previous request for transmission.

20.   (Previously Presented), The mobile station of claim 12, wherein if no grant is received from the base station in response to the request for transmission, the processing subsystem is configured to autonomously transmit data to the base station.

21-34. (Canceled)

35.   (Currently Amended) A method for a base station comprising:

receiving a request for grant including an identification of a specific service class from a mobile station at the base station, the specific service class being one of a set of available service classes, each service class corresponding to a particular type of data to be transmitted by the mobile station, and wherein the request for grant is received if a threshold amount of data is detected in buffers at the mobile station;

processing the request at the base station;

determining at the base station whether to issue a grant to the mobile station in response to the request for grant;

sending a grant for the specific service class to the mobile station if a determination is made at the base station to issue the grant to the mobile station; and

receiving data for the specific service class transmitted according to the grant on a reverse link from the mobile station to the base station, wherein the base station is a serving base station.

36.   (Original) The method of claim 35, further comprising issuing the grant if the base station determines that the grant should be issued.

37.   (Previously Presented) The method of claim 35, further comprising issuing the grant as an individual grant.

38.   (Previously Presented) The method of claim 37, further comprising identifying the mobile station in the grant.

39.   (Previously Presented) The method of claim 38, further comprising identifying the specific service class in the grant.

40.   (Previously Presented) The method of claim 35, further comprising issuing the grant as a common grant.

41.   (Previously Presented) The method of claim 40, further comprising identifying the specific service class in the grant.

42.   (Original) The method of claim 36, further comprising issuing at least one individual grant and at least one common grant.

43.   (Previously Presented) The method of claim 35, wherein the determining whether to issue the grant is performed without communicating with a base station controller.

44.   (Previously Presented) The method of claim 35, wherein the determining whether to issue the grant is performed without communicating with one or more additional base stations.

45.   (Previously Presented) The method of claim 35, wherein the determining whether to issue the grant is performed at a medium access control layer.

46.   (Previously Presented) The method of claim 35, further comprising:

transmitting the request for grant from the mobile station to the base station;

if a grant corresponding to the request is issued, transmitting data in the specific service class according to the received grant; and

if no grant corresponding to the request is issued, either transmitting data in the specific service class in an autonomous mode, or transmitting a subsequent request, or both.

47.   (Currently Amended) The method of claim 46, ~~further comprising monitoring one or more buffers,~~ wherein each buffer is associated with one of the service classes ~~and, for each buffer, generating a corresponding request for grant if a threshold amount of data is detected in the buffer~~.

48.   (Currently Amended) The method of claim 47, further comprising specifying in the request for [[a]] the each buffer the class of service associated with the each buffer and the amount of data in the each buffer.

49.   (Previously Presented) The method of claim 46, further comprising specifying in the request for grant a maximum supportable traffic-to-pilot ratio.

50.   (Previously Presented) The method of claim 49, further comprising generating feedback while transmitting under the grant, wherein the feedback indicates changes in the maximum supportable traffic-to-pilot ratio.

51.   (Canceled)

52.   (Currently Amended) A method for a mobile station comprising:

transmitting a request for grant from the mobile station to a base station in a layer for determining at the base station whether or not to issue a grant to the mobile station in response to the request for grant, wherein the request identifies a specific class of service among a set of available classes of service, each service class corresponding to a particular type of data to be transmitted by the mobile station; and

if a grant corresponding to the request is determined at and issued by the base station, transmitting data for the specific class of service on a reverse link from the mobile station to the base station according to the received grant, wherein the base station is a serving base station; and

monitoring buffers, wherein for each buffer, generating the request for grant if a threshold amount of data is detected in the each buffer.

53. (Currently Amended) The method of claim 52, ~~further comprising monitoring one or more buffers,~~ wherein <u>the</u> each buffer is associated with one of the classes of service ~~and, for each buffer, generating a corresponding request if a threshold amount of data is detected in the buffer~~.

54. (Currently Amended) The method of claim 53, further comprising specifying in the request for [[a]] <u>the each</u> buffer the class of service associated with the <u>each</u> buffer and the amount of data in the <u>each</u> buffer.

55. (Previously Presented) The method of claim 52, further comprising specifying in the request a maximum supportable traffic-to-pilot ratio.

56. (Previously Presented) The method of claim 55, further comprising generating feedback while transmitting under the grant, wherein the feedback indicates changes in the maximum supportable traffic-to-pilot ratio.

57. (Canceled)

58. (Currently Amended) An apparatus comprising<u>:</u>

means for transmitting a request for grant from the mobile station to a base station in a layer for determining at the base station whether or not to issue a grant to the mobile station in response to the request for grant, wherein the request identifies a specific class of service among a set of available classes of service, each service class corresponding to a particular type of data to be transmitted by the mobile station; ~~and~~

means for transmitting data for the specific class of service on a reverse link from the mobile station to the base station according to a grant corresponding to the request, if the grant is determined at and issued by the base station, wherein the base station is a serving base station<u>; and</u>

<u>means for monitoring buffers, wherein for each buffer, generating the request for grant if a threshold amount of data is detected in the each buffer.</u>

59.   (Currently Amended) The apparatus of claim 58, ~~further comprising:~~

~~means for monitoring one or more buffers,~~ wherein each buffer is associated with one of the classes of service ~~and, for each buffer, generating a corresponding request if a threshold amount of data is detected in the buffer~~.

60.   (Currently Amended) The apparatus of claim 59, further comprising:

means for specifying in the request for [[a]] <u>the each </u>buffer the class of service associated with the <u>each </u>buffer and the amount of data in the <u>each </u>buffer.

61.   (Previously Presented) The apparatus of claim 58, further comprising:

means for specifying in the request a maximum supportable traffic-to-pilot ratio.

62.   (Currently Amended) A non-transitory computer-readable medium encoded with a computer program for a communication system, comprising:

instructions for sending a request for grant from the mobile station to a base station in a layer for determining at the base station whether or not to issue a grant to the mobile station in response to the request for grant, wherein the request identifies a specific class of service among a set of available classes of service, each service class corresponding to a particular type of data to be transmitted by the mobile station; and

instructions for sending data for the specific class of service on a reverse link from the mobile station to the base station according to a grant corresponding to the request, if the grant is determined at and issued by the base station, wherein the base station is a serving base station; and

instructions for monitoring buffers, wherein for each buffer, generating the request for grant if a threshold amount of data is detected in the each buffer.